| INFO | DRMATION DISCLOSURE CITATION | 2018-7 | OCKET NO. 47 | SERIAL NO. 10/625,697 | | | |
|-------------|--|---|---------------------------------------|-----------------------|--|----------|----------|
| 0 3 7004 | the several sheets if necessary) | KAWA FILING D | AI et al | GROUP | | | |
| TRACEMAR | / | July 24 | | 2832 | | | |
| *EXAMINE | R | U.S | S. PATENT DOCUMENTS | | | FILING | TD. |
| INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | IF APPR | OP |
| | - | | | | - | | |
| | + | | · · · · · · · · · · · · · · · · · · · | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | <u>'</u> | |
| | | | | | | | |
| _ | 1 | | | | | | |
| | | | | | <u> </u> | | |
| | | | | | | | |
| | | | · | | | | |
| | | | | · | | | _ |
| | | | | | | | _ |
| | | | | | | | |
| | | | | | | | |
| | | ļ | | | | | |
| | | FOR | EIGN PATENT DOCUMENTS | | <u> </u> | | |
| | | | | | | ABST | RA |
| | DOCUMENT | DATE | COUNTRY | CLASS | SUBCLASS | YES | · |
| | | | • | | | | L |
| | | | | | | | ├ |
| | + | | | | - | | \vdash |
| | | - | · · · · · · · · · · · · · · · · · · · | | | | ┢ |

Notice of Rejection in Appeal No. 2003-10895; Application No. 9-214943; Notice Date: October 8, 2004; with partial translation

*Examiner

*Examiner

*Examiner

*Examiner

*Date Considered

*Application No. 9-214943; Notice Date: October 8, 2004; with Date Considered

*Application No. 9-214943; Notice Date: October 8, 2004; with Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

| 2ueet . | 1 of | | | | | | |
|----------------------|---|--------------------|---|--------------|--|--------------------|--------------|
| VIFER | ION DISCLOSURE | ATTY, D | OCKET NO. SERL | AL NO. | | | |
| ∕ 0. | MOITATE | 2018 | -747 Not | yet assi | gned | | |
| 2 2 97 | 004 <u>w</u> | APPLICA | NT | | | | |
| SEP | | KAWA | J et al (As Amended) | | | | • |
| | de sector sheets if necessary) | FILING C | ATE GRO | JP | | | |
| JUVAL & S.C. | in. | July 2 | 24, 2003 | | | | |
| | | , l | J.S. PATENT DOCUMENTS | | | 61.0 | |
| 'EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME . | CLASS | SUBCLASS | FILING IF APPRO | |
| TIN | 4866409 | 9/1989 | Umezaki | | | | |
| | | | | | | <u> </u> | |
| | | FC | PREIGN PATENT DOCUMENTS | | · | TRANC | LATION |
| | DOCUMENT | DATE | COUNTRY | CLASS | SUBCLASS | YES | NO |
| 710 | DE 3113743A1 | 10/1982 | Germany | | | | |
| | WO 93/13533 | 8/1993 | WIPO | | | | Ĺ |
| | 0388146 A1 | 9/1990 | EPO | | | | |
| | 0738831 A2 | 10/1996 | EPO | <u> </u> | | | |
| | 0827163 A2 | 3/1998 | EPO | | ļ | | <u> </u> |
| | 2512714 | 09/1976 | Germany | | | _ | |
| \longrightarrow | 0258036 | 03/1988 | EPO | _ | | | - |
| | 2302616A | 01/1997 | Great Britain | | | | |
| | 10-112413 1 125519 | 04/1998 08/1989 | Japan Japan | | | ├ ── | |
| | 1 63120 | 04/1989 | Japan | | | - | |
| | 62 197831 | 12/1987 | Japan | | | | |
| | 9 186034 | 07/1997 | Japan | | | | |
| | 5 267072 | 10/1993 | Japan | | | † | |
| | 3 236208 | 10/1991 | Japan | 1 | | | |
| | 2 301105 | 12/1990 | Japan | | | | |
| 112 | 58-61615 | 04/1983 | Japan | | | | |
| | | | including Author, Title, Date, Pertine | | | | |
| TTN | Electric KK), 21 July 1 | 983 | N, Vol. 007, No. 233 (E-204), 15 Octobe | | | | |
| | Ltd.), 19 January 1996 | 3 | N, Vol. 096, No. 005, 31 May 1996 & JF | | | | |
| | | | N, Vol. 010, No. 035 (E-380), 12 Februa | ıry 1986 & | JP 60 1923 | :13 A (Ni | ppan |
| | Denso KK), 30 Septem | | N, Vol. 013, No. 254 (E-772), 13 June 1 | 080 & ID (| 1 0535144 | (Ninnon | Denso |
| | _ Co. Ltd.), 1 March 198 | | 14, Vol. 010, No. 204 (C-112), 10 Julio 1 | 305 a 01 · | J. 00001 17 | , (. uppor | . 5000 |
| | PATENT ABSTRACTS Ltd.), 2 April 1996 | S OF JAPA | N, Vol. 096, No. 008, 30 August 1996 & | JP 08 086 | 267A (Toyo | Denso | Co. |
| | | | N, Vol. 097, No. 005, 30 May 1997 & JF | 09 01766 | 2A (Hitachi | Ltd: Hita | ichi |
| | PATENT ABSTRACTS | S OF JAPA | N, Vol. 018, No. 430 (C-1236), 11 Augu | st 1994 & . | JP 06 1284 | 71A (Tor | ay Ind |
| 9 | | | N, Vol. 096, No. 003,29 March 1996 & J | P 07 3128 | 39 A (Mitsu | bishi Ele | ctric |
| 11M | | | 4790 of DENSO dated 1990 No | MONT | H , | | |
| *Examiner | PGUYE | | Date Considered | | 7/04 | | |
| | | | | | | | |

| INFO | RMATION DISCLOSURE | ATTY. DO | OCKET NO. | | SERIAL NO. | | | |
|--|--------------------------------|------------------|--------------------------|---------------------------------------|-----------------|-------------|--------------|-------------|
| | CHATTONO | 2018-7 | 47 | | 10/625,697 | | | |
| | / | APPLICA | NT | | , | | | |
| (L | Is several sheets if necessary | KAWA FILING D | AI et al | | GROUP | | | |
| | THE OF WHAT | | | | | | | |
| | & TRAUS | | I, 2003 S. PATENT DOC | IIMENTS | unknown | | • | |
| *EXAMINER | | | | | | | FILING | DATE |
| INITIAL | DOCUMENT NUMBER | DATE | 1 | IAME | CLASS | SUBCLASS | IF APPRO | PRIATE |
| <u> </u> | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | ···· | 1 | | , | | |
| | | | | | | | | |
| | | <u> </u> | | | | | | |
| | | | | <u>.</u> | | | | |
| | | | | · · · · · · · · · · · · · · · · · · · | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| ······································ | | FOR | EIGN PATENT | OCUMENTS | **** | | | |
| | DOCUMENT | DATE | CO | UNTRY | CLASS | SUBCLASS | ABSTR YES | RACT NO |
| 111 | 0 703 588 A1 | 03/1996 | | EP | | | | |
| | | | - | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| l | OTHER DOC! | IBSENITO (:- | aludian Author | Tials Data Da | 4: | | | |
| | OTHER DOCK | JINEN 19 (III | cluding Author, | Title, Date, Per | tinent pages, e | HC.) | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Evamina | 416. | . A = A | | | | · / : | | |
| Examiner | NETU | YEN | | ate Considered | 3/6 | 105 | | |

Ĺ

| , | | | | | | | | | | |
|----------------------|---------------------------------------|---------------------------------------|----------------|---|-------------|--|------------|-------------------|-----------------|--|
| INFOR | MATION DISCLOSURE | ATTY. | DOCKET NO. | | SERI | AL NO. | | | | |
| | CITATION | 2018 | -747 | | 10/6 | 525,697 | | | | |
| | OIPE | APPLIC | CANT | | | | | | | |
| 41 | 4 | KAW | VAI et al | | | | | | | |
| (U: | se several sheets if necessary) | FILING | DATE | · · · · · · · · · · · · · · · · · · · | GROUP | | | | | |
| | MAR 0 9 2004 | July 2 | 24, 2003 | | unknown | | | | | |
| APMAANNES | 7, 8 | L. L | J.S. PATENT | DOCUMENTS | | | | | | |
| *EXAMINER INITIAL | DOCUMENT NUMBER | DATE | | NAME | | CLASS | SUBCLASS | FILING IF APPR | DATE OPRIATE | |
| | | | | | | | | | 91 1111/112 | |
| | | · | | | | | | | | |
| | | | | | | ļ | | | | |
| | | | | | | | | | | |
| | | | | | - | | | | | |
| | | | | | | - | | | | |
| | | | | | | | | | | |
| | | | | | | ŀ | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | <u> </u> | | | | |
| | | | | | | | | - | | |
| | | | | | | | - | | | |
| | | | | *************************************** | | | | | | |
| | | • | | | | | | | | |
| | | | | | | | | | | |
| | | FO | REIGN PATE | NT DOCUMENTS | | | | * | | |
| | DOCUMENT | DATE | | COUNTRY | | CLASS | SUBCLASS | ABST YES | RACT | |
| TIN | 63-293908 | 11/1988 | #4H | JAPAN | | T | | XX | | |
| MN | 5-220767 | 08/1993 | | JAPAN | | | | XX | | |
| MN | 3-208313 | 09/1991 | | JAPAN | | | | XX | | |
| | | | | | | | ļ - | | | |
| | OTHER DOC | URAFNITO (| la alcudia a A | | | | <u> </u> | | | |
| | OTHER DOC | OMENI2 (| including Au | thor, Title, Date, Po | ertinen | t pages, o | etc.) | | | |
| | | · · · · · · · · · · · · · · · · · · · | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | · · · · · · · · · · · · · · · · · · · | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | 1.1 | | | |
| Examiner | NG | UYEN | | Date Considere | d | 3 | 16/05 | | | |

| Sheet | 1 | of | 1 | | | FEB 1 1 20 | 614 J | | | | | |
|-----------|--|---------------------------------------|---------------|---------------|-----------|---------------|--------------|---------------|-------------|--------------|----------|-------------|
| INFO | RMAT | ION DISCLO | SURE | ATTY. I | OCKET NO | FEB 1 1 2 | <u> </u> | SERIAL | NO. | | | |
| | | ITATION | | 2018 | 747 | (A) | RICE | 10/62 | 5 697 | | | |
| | | | | APPLIC | ANT | HADE | | 10/02 | <u> </u> | | | |
| (L | Jse sevei | al sheets if necessa | ary) | KAW FILING | AI et al | (As Amend | ed) | GROUP | | | <u>-</u> | |
| | | | | | | | | | | | | |
| · | | | | | 24, 2003 | NT DOCUME | NTC | unkno | own | | | |
| *EXAMINER | | | | | J.S. PAIE | NT DOCUME | 112 | | | | FILING | DATE |
| INITIAL | | OCUMENT NU | MBER | DATE | | NAME | | Т | CLASS | SUBCLASS | | |
| | - | | | | | | | | - | | | |
| | ╁╌╁╌ | | - | | | | | | | | | |
| | \vdash | | | | | | | | | | | |
| | | | | | | - | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | H | · | | | | ·· | - | | - | | | |
| | | | | | | | | | | | | - |
| | ff | · · · · · · · · · · · · · · · · · · · | | | | | | | | | | |
| | \Box | | | | | | | • | , - | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | <u> </u> | | | | | | | | | | · | |
| | | | | FC | REIGN P | ATENT DOCU | MENTS | | | | ADCT | RACT |
| | | DOCUMEN | т | DATE | | COUNTRY | 1 | | CLASS | SUBCLASS | YES | NO |
| 110 | | 52-01713 | 6 | 02/1977 | | JAPAN | | | | | XX | <u> </u> |
| | | 08-12477 | 9 | 05/1996 | | JAPAN | | | | | XX | |
| | | 3026649 | | 05/1996 | | JAPAN | | | | | | XX |
| | - - | 64-00144 | | 01/1989 | | JAPAN | | | | | XX | ļ |
| | Н- | 05-01292 | | 01/1993 | | JAPAN | | | | | XX | ļ |
| 11N | ├-├- | 08-10242 | 4 | 04/1996 | | JAPAN | | | | | | <u> </u> |
| | IL_ | OTHE | P DOC | IIMENTS (| including | Author, Title | Data Pa | rtinent i | 2006 | etc) | | ! |
| | | OIRE | n DOC | OIMEIA12 | including | Author, Title | Date, FE | runent | Jages, t | <u> </u> | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | - - | | | | | | . | | | | | |
| | - - | | - | | | | | - | | | · | |
| | | | | | | | | | | 704 | | |
| | | | | | | | | | | | | |
| *Examiner | | | NG | VYEN | | Date C | onsidered | 1 | 3/6 | 105 | | |

| Sheet 1 | of * 1 | sa <mark>st</mark> a. Sa Sasta de La Companya d Companya de La Companya | JAN 2 0 2004 H | | | | |
|----------------------|-------------------------------|---|--|-----------------------|---------------------------------------|----------------------------|--|
| INFORM | MATION DISCLOSURE CITATION | ATTY. DOCKET NO. 2018-747 APPLICANT | \a \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | SERIAL NO. 10/625,697 | · · · · · · · · · · · · · · · · · · · | | |
| (Use | several sheets if necessary) | · | (As Amended) | GROUP unknown | | | |
| | | | NT DOCUMENTS | - CIRCIO WII | | | |
| *EXAMINER INITIAL | DOCUMENT NUMBER | _DATE | NAME | CLASS | SUBCLASS | FILING DATE JF APPROPRIAT | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | • | | |

FOREIGN PATENT DOCUMENTS ABSTRACT CLASS **DOCUMENT** DATE COUNTRY **SUBCLASS** YES NO 63-105317 07/1988 JAPAN 9-115749 05/1997 **JAPAN** XX OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

*Examiner NGUYEN Date Considered 3/6/05

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

| INFO | RMATION DISCLOSURE | ATTY. DO | CKET NO. | SE | RIAL NO. | | ····· | |
|--------------|--|-----------------------|---------------------------------------|----------------|-----------------|-------------------|---------------|---------|
| | CITATION | 2018-7 | | To | Be Assig | ned | | |
| | | APPLICAN | | | | | | |
| 1 | Use several sheets if necessary) | KAWAI | et al (As Amended) | | | | | |
| ` | out action and the interest of | FILING DA | | | OUP | | | |
| | | July 24, | | | known | | | |
| *EXAMINER | | U.S | . PATENT DOCUMENT | <u>s</u> | | | FILING DA | ATE |
| INITIAL | DOCUMENT NUMBER | DATE | NAME | | CLASS | SUBCLASS | IF APPROP | RIATE |
| | | | | | | ļ | | |
| | | | | | | <u></u> | | |
| | | | | , | | | | |
| | · | | | | | | | |
| | | | | | | | | |
| | | | | | | ļ | | |
| | | | | | | ļ | | |
| | ++ | | | | | { | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | · · · · · · · · · · · · · · · · · · · | | | | | |
| | | | | | | | | |
| | | | | | | | <u> </u> | |
| | | | | | | | | |
| | ·· ··································· | FOR | EIGN PATENT DOCUM | ENTS | ···· | | _ | |
| | | | | | | • | TRANSLA | TION |
| | DOCUMENT | DATE | COUNTRY | | CLASS | SUBCLASS | | |
| TIN | 63-164307 | 07/1988 | Japan | | | | XXX | |
| 110 | 2-92912 | 07/1990 | Japan | | | | XXX | |
| 111 | 3028977 | 08/1996 | Japan | | | | XXX | |
| | | | | | | | | |
| | + | | | | | | | |
| | + | | | | | | | |
| | | | | | + | | | |
| | OTHER DOC | UMENTS (inc | luding Author, Title, D | ate, Pertin | ent pages. | etc.) | | |
| | | | | | | | | |
| | | | | | | | | |
| - | | | | | | | | |
| | | | | | / | | | |
| Examiner* | | nguye n | Date Co | nsidered | 3/1 | 3/05 | | |
| Examiner: In | nitial if reference considered, who Include copy of this form with nex | ether or not citation | on is in conformance with MPI | EP 609; Draw I | ne through cita | ation if not in c | onformance a | and not |
| | made why or this form with hex | . communication | то арриовногт. | | | Form PTO-FB- | A820 (Also PT | 0-1449 |

| INFOR | MATION DISCLOSURE | ATTY. DOC | CKET NO. | | SERI | AL NO. | | | |
|--------------------|--|--------------|---|--------------------|-------------|--|--------------|---------------|--|
| | CITATION | 2018-7 | 7 47 | | Not | yet assi | gned | | |
| | | APPLICAN | Υ | | | | | | |
| | | KAWAI | et al (As Am | ended) | | | | | |
| (U | Ise several sheets if necessary) | FILING DA | | | GROU | JP | | | |
| | | July 24 | 1, 2003 | | | | | | |
| | | | | OCUMENTS | • | · · | | | |
| *EXAMINER | | | J. FAILINI L | | | 7- | | | DATE |
| INITIAL | DOCUMENT NUMBER | DATE | | NAME | | CLASS | SUBCLASS | IF APPR | OPRIATE |
| 712 | 4866409 | 9/1989 | | Umezaki | | | | | |
| | | FOR | EIGN PATE | NT DOCUMENTS | | <u> </u> | | <u> </u> | |
| | | | | | _ | | | TRANS | LATION |
| | DOCUMENT | DATE | | COUNTRY | | CLASS | SUBCLASS | YES | NO |
| 110 | DE 3113743A1 | 10/1982 | | Germany | | | | I | |
| 1 | WO 93/13533 | 8/1993 | | WIPO | | | | | |
| | 0388146 A1 | 9/1990 | | EPO | | | | | |
| | 0738831 A2 | 10/1996 | | EPO | | | | | |
| | 0827163 A2 | 3/1998 | | EPO | | | | | |
| | 2512714 | 09/1976 | · · · · · · · · · | Germany | | | | | |
| | 0258036 | 03/1988 | | EPO | | | | | |
| | 2302616A | 01/1997 | ····· | Great Britain | | † | | | |
| | 10-112413 | 04/1998 | <u>-</u> | Japan | | | | | |
| - - | 1 125519 | 08/1989 | | Japan | | | | | |
| | 1 63120 | 04/1989 | | Japan | | | | | |
| \dashv | 62 197831 | 12/1987 | _ _ | Japan | | | | | |
| 1-1 | 9 186034 | 07/1997 | | Japan | | | | | |
| 1 | 5 267072 | 10/1993 | | Japan | | + | | | _ |
| + | 3 236208 | 10/1991 | | Japan | | | | | |
| 1 | 2 301105 | 12/1990 | | Japan | | - | | | - |
| CIN | 58-61615 | 04/1983 | · | Japan | | | | - | |
| 111 | | | cluding Aut | hor, Title, Date, | Pertiner | t pages. | etc.) | L | <u> </u> |
| | PATENT ABSTRACTS | <u>`</u> | | | | | | 3A (Har | nshin |
| FM | Electric KK), 21 July 19 | | , | . 200 (2 20 1), 10 | 00.000 | | . 00 | · (| |
| 1 | PATENT ABSTRACTS | OF JAPAN, | Vol. 096, No | o. 005, 31 May 19 | 96 & JP | 08 01765 | 7 A (Nippon | denso (| Co. |
| | Ltd.), 19 January 1996 | | | | | | | 10 1 10 1 | |
| | PATENT ABSTRACTS | | Vol. 010, No | o. 035 (E-380), 12 | ? Februa | ry 1986 & | JP 60 1923 | 13 A (N | ppon |
| | Denso KK), 30 Septem PATENT ABSTRACTS | | Val 013 No | 254 (E-772) 13 | Llune 10 | 280-8 ID (| 1 0535144 | (Ninnor | Dens |
| 111 | Co. Ltd.), 1 March 198 | | , 401. 015, 140 | J. 254 (L-112), 10 | Julie 13 | 000 CL 01 C | 11 0000 177 | (14ippoi | Dens |
| | PATENT ABSTRACTS | | Vol. 096, No | o. 008, 30 August | 1996 & | JP 08 086 | 267A (Toyo | Denso | Co. |
| | Ltd.), 2 April 1996 | | | | | | | | |
| | PATENT ABSTRACTS | | | o. 005, 30 May 19 | 97 & JP | 09 01766 | 2A (Hitachi | Ltd: Hita | achi |
| | Automot Eng Co Ltd), PATENT ABSTRACTS | | | 120 (0 1226) | 4 A | + 1004 P | ID 06 42947 | 71 A (To: | ov lod |
| | Inc); 10 May 1994 | OF JAPAN, | voi. U18, N |). 430 (U-1236), 1 | i Augus | 1994 & . | JE UO 1204/ | 1A (10 | ay ind |
| | PATENT ABSTRACTS | OF JAPAN | Vol. 096. No | o. 003,29 March 1 | 996 & J | P 07 3128 | 39 A (Mitsul | bishi Ele | ectric |
| 7/ | Corp); 28 November 1 | | | | | | | | |
| 700 | Engineering Drawing N | lo. 029700-4 | 790 of DENS | | NO | MONT | + | | |
| Examiner | NEV | IEN | | Date Conside | red | 3/1 | 6/05 | | _ |

| INFORMATION DISCLOSURE | | ATTY. DO | ATTY, DOCKET NO. | | SERIAL NO. | | | | | |
|------------------------|---|----------------------|--|--------------------------|------------------|--------------|--|--|--|--|
| | CITATION | 2018- | -747 | Not Yet Ass | sianed | | | | | |
| | | APPLICA | | | | | | | | |
| | | KAWA | Al et al (As Amended) | | | | | | | |
| (Usa | e several sheets if necessary) | FILING D | • | GROUP | | | | | | |
| | | July 2 | 4, 2003 | | | • | | | | |
| | | | I.S. PATENT DOCUMENTS | | | | | | | |
| *EXAMINER | | | | | | | 3 DATE | | | |
| INITIAL | 5 416 459 | 5/16/95 | NAME IDA ET AL | CLASS | SUBCLASS | IF APPR | OPRIATE | | | |
| 11N | 5 778 863 | 07/1998 | OOSUKA | | ļ | | | | | |
| | 5 703 556 | | | | ļ | ├ ── | | | | |
| | | 12/1997 | KIKUTA | | <u> </u> | | | | | |
| | 4 982 498 | 01/1991 | UMEZAKI | | | ļ | | | | |
| | 4 803 454 | 02/1991 | UMEZAKI | | ļ.~ | <u> </u> | | | | |
| - | 4 736 179 | 04/1988 | BEHNKE | | | | | | | |
| | 4 532 398 | 07/1985 | HENRIKSSON | | | <u> </u> | | | | |
| | 4 325 096 | 04/1982 | SUNOHARA | | | <u> </u> | | | | |
| | 2 743 308 | 04/1956 | BARDSLEY | | | | | | | |
| | 4 744 337 | 05/1988 | EBINUMA | | | | | | | |
| 110 | 4 514 712 | 07/1998 | MCDOUGAL | | | | • | | | |
| | | | _ | | | | | | | |
| | | | | | | | | | | |
| | | | | | 1 | | | | | |
| | | FO | REIGN PATENT DOCUMENTS | | <u> </u> | | | | | |
| | | | | | | TRANS | LATION | | | |
| | DOCUMENT | DATE | COUNTRY | CLASS | SUBCLASS | YES | NO | | | |
| 112 | Y2-59-030501 | 08/1984 | JAPAN | | | | | | | |
| 1 | A 09-022825 | 01/1997 | JAPAN | | | | | | | |
| | A 09-180948 | 07/1997 | JAPAN | | | | | | | |
| | A 09-171934 | 061997 | JAPAN | | | | | | | |
| | A 9-167709 | 06/1997 | JAPAN | | | | | | | |
| | 0 782 231 A1 | 021997 | EP | | | | | | | |
| | A 05-021242 | 01/1993 | JAPAN | | | | | | | |
| 1 | A 62-166745 | 07/1987 | JAPAN | | | | | | | |
| - - | A 50-74123 | 06/1975 | JAPAN | | | | | | | |
| + | 1 156 732 | 11/1983 | CANADA | | | | | | | |
| TIN | A 05-146107 | 6/1993 | JAPAN | | | | | | | |
| | | | 7,4,55 | - | | | | | | |
| | OTHER DOC | UMENTS (i | ncluding Author, Title, Date, Per | inent pages | etc.) | | <u> </u> | | | |
| | | | The state of the s | pageo, | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| vanisas | | 18 200 1 | | | 11 | | | | | |
| xaminer | | VYEN | Date Considered | | 6/05 | | | | | |
| aminer: Initial if | reference considered, whether or rith next communication to applicati | not citation is in c | conformance with MPEP 609; Draw line through ci | tation if not in conform | nance and not co | onsidered. I | nclude | | | |
| -, or and 101111 WI | armovi communication to applicat | O11. | | | Form PTO-FB- | A820 (Also | PTO-144 | | | |
| | | | | | | | | | | |

| INFOR | INFORMATION DISCLOSURE | | OCKET NO. | SERIAL NO. | | | |
|---------------------------------------|---------------------------------------|-------------|---------------------------------------|----------------|-----------------|----------|--------------|
| | CITATION | 2018- | 747 | To Be Assig | med | | |
| | | APPLICA | | | <u> </u> | | |
| | | ĽΔW | AI et al (As Amended) | | | | |
| · (Us | e several sheets if necessary) | FILING | DATE (AS AMENDED) | GROUP | ···- | | |
| | | Y-1 0 | 4 2002 | | | | |
| · · · · · · · · · · · · · · · · · · · | | July 2 | 4, 2003 | | | | |
| | | 4.1 | 0. 0.1751/7.000////51/70 | | | | |
| *EXAMINER | | <u>U.</u> | S. PATENT DOCUMENTS | | | FILING | 3 DATE |
| INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | | |
| 11N | 5 767 758 | 06/1998 | SAKAMAKI | | | | |
| 711 | 5 870 012 | 02/1999 | SAKAMAKI | | | | |
| | | L(| | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | ļ | | |
| | | | | | | | |
| | | | | | | <u> </u> | ; |
| | | | | | | | |
| | | | | | | ļ | |
| | | ` | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | <u> </u> | _ |
| | | | | | | | |
| | | | | | | | |
| | | | | | <u> </u> | | -10 |
| | | FORE | EIGN PATENT DOCUMENTS | | | | |
| | DOCUMENT | DATE | COLINATIV | 01.400 | 011001400 | | RACT |
| - C C C | DOCUMENT | DATE | COUNTRY | CLASS | SUBCLASS | YES | NO |
| 11N | 04-144217 | 05/1992 | JAPAN | | | XX | <u></u> |
| | 61-158116 | 07/1986 | JAPAN | | <u> </u> | XX | |
| | 08-203757 | 08/1996 | JAPAN | | ļ | XX | ļ |
| | 07-142233 | 06/1995 | JAPAN | | | XX | ļ |
| | 60-103608 | 06/1985 | JAPAN | | L | | <u> </u> |
| | 62-172127 | 10/1987 | JAPAN | | explanation | | |
| | 3028977 | 07/1996 | JAPAN | | explanation | | |
| | 2-92912 | 07/1990 | JAPAN | concise | explanation | XX | - |
| 11N | 10-22144 | 02/1998 | JAPAN | | | | <u> </u> |
| 777 | 4-144218 | 05/1992 | JAPAN | | | | |
| | | | | | | | |
| | OTHER DOC! | MENTS (: | cluding Author, Title, Date, Pert | inent names of | L | L | <u> </u> |
| | | | Disclosure; Ignition Device for Inte | | | 81_082+ | |
| TTW | November 15, 1991 with | Translation | Disclosure, ignition Device for Inter | mai Comousiion | Lugine, 190. | 01-003; | |
| • | | | | | | * | |
| | · · | | | | | | |
| | | | | | | | |
| *Examiner | ATE | MEN | Date Considered | 1 4/ | 2/00 | | |
| Forming Light | · · · · · · · · · · · · · · · · · · · | | | | -,-, | | |